

DOI Work Activity 00: Plan/Evaluate Programs to Inform Decisions on Fire Adapted Ecosystems

Program Area:	Knowledge Advancement
End Outcome Goal:	PEO 1 - Improve Health of Watersheds and Landscapes
Intermediate Outcome Strategy:	PIO 1.1 - Restore and Maintain Proper Function to Watersheds and Landscapes
DOI Sub process:	2a - Plan (prepare resource use & mgmt plans)

Examples/Notes:

Work Activity Description: Planning, developing, and reviewing science programs related to fire. Includes all costs associated with: developing strategic and annual/operating program plans; conducting internal and external reviews of programs; assessing science and information needs and priorities; and coordinating crosscutting regional, national and international science planning efforts. This encompasses all work leading to completion of program plans, reviews and assessments. Some of these activities are done in collaboration with customers, stakeholders, and partners so that we may develop and implement programs that are responsive to society's highest science priority needs and improve the effectiveness and impact of programs. Does not include DOI strategic planning or Bureau strategic planning which are included under DOI activity **Perform Planning (67)**.

Output: Plans and Evaluation reports (e.g. Program evaluations, Performance Reports, Peer Reviews, 5-yr Plan, PART, effects statements, capability statements, Customer Satisfaction Surveys)	Unit of Measure: Number of Plans and Evaluation reports
Inputs:	Cost Drivers:

System Interfaces:

DOI Program Area Contact: Charlene Hall Raphael (USGS)

DOI Work Activity 02: Plan Landscape/Watershed Resource Management

Program Area:	Landscapes and Watersheds
End Outcome Goal:	PEO 1 - Improve Health of Watersheds and Landscapes
Intermediate Outcome Strategy:	PIO 1.2 - Improve Information Base, Information Management and Technical Assistance
DOI Sub process:	2a - Plan (prepare resource use & mgmt plans)

Examples/Notes:

Work Activity Description: This work activity includes activity plans (implementation plans) that meet the goal of healthy watersheds and landscapes. These activity plans refine the broad program objectives stated in the land use plan (RMP or MFP), outline an implementation strategy for decisions made in the land use plan, and apply best management practices to meet land use objectives.

This work activity includes all costs associated with the preparation of these activity plans: Staff time for preparation, collaboration (outreach, meetings, public meetings, etc.) with other entities and the public, consultation with tribes, NEPA analysis (including T&E consultation and review), coordination and cross-walking with other existing implementation plans, third party contracting, etc. It also includes costs associated with document preparation such as printing, collating, and distribution; training associated with preparing staff to complete these plans; research and data searches; and GIS associated activities.

If a land use plan amendment is required prior to approval of an activity plan, and the land use plan amendment and the activity plan are being prepared concurrently, the cost of the concurrent effort through the approval stage of the plan amendment should be charged to the land use plan amendment work activities. Following approval of the land use plan amendment, costs of finalizing the activity plan should be coded to this work activity. A unit of accomplishment should be reported for the plan amendment when it is approved, and an additional unit of accomplishment should be reported for the activity plan when it is approved.

This work activity includes all costs associated with general management planning; reviewing and evaluating issues confronting the parks and statutory requirements for recently authorized additions to the National Park System. This work activity includes all costs associated with conducting special resource studies; in which National Park Service monitors resources that exhibit qualities of national significance, and conducts resources studies where specifically authorized, to determine if areas have potential for inclusion in the National Park System. This work activity includes all costs associated with conducting environmental impact planning and compliance; costs associated with preparing environmental impact statements and fulfilling other environmental planning and evaluations required by law; costs associated to support technical efforts in preparing complex documents, facilitate public and agency reviews, and help secure decisions that are legally and environmentally sustainable.

Output: New or revised activity plan.	Unit of Measure: Number(s) of new or revised activity plans completed during the fiscal year. Report new or revised activity plans when the decision document for the plan is signed. Revisions include a modification of a significant portion of the decisions in the activity plan. Do not report minor amendments or changes in these plans, even though these costs may be charged to this work activity
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Inputs: Data, labor, computer hardware/software & time, contracts, management plans, legislation, interagency coordination and public comments	Cost Drivers: Legislation, regulation, policy, and judicial requirements
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System Interfaces:

DOI Program Area Contact:

DOI Work Activity 03: Plan/Evaluate Programs to Inform Decisions on Landscapes, Watersheds, Marine & Coastal Resources

Program Area:	Knowledge Advancement
End Outcome Goal:	PEO 1 - Improve Health of Watersheds and Landscapes
Intermediate Outcome Strategy:	PIO 1.2 - Improve Information Base, Information Management and Technical Assistance
DOI Sub process:	2a - Plan (prepare resource use & mgmt plans)

Examples/Notes:

Work Activity Description: Planning, developing, and reviewing science programs. Includes all costs associated with developing strategic and annual/operating program plans; conducting internal and external reviews of programs; assessing science and information needs and priorities; and coordinating crosscutting regional, national and international science planning efforts. This encompasses all work leading to completion of program plans, reviews and assessments. Some of these activities are done in collaboration with customers, stakeholders, and partners so that we may develop and implement programs that are responsive to society's highest science priority needs and improve the effectiveness and impact of programs. Does not include DOI strategic planning or Bureau strategic planning that are included in DOI activity **Perform Planning (67)**.

Output: Plans and Evaluation Reports (e.g. Program evaluations, Performance Reports, Peer Reviews, 5-yr Plan, PART, effects statements, capability statements, Customer Satisfaction Surveys)	Unit of Measure: Number of Plans and Evaluation Reports
Inputs:	Cost Drivers:

System Interfaces:

DOI Program Area Contact: Charlene Hall Raphael (USGS)

DOI Work Activity 0B: Manage and Protect Aquatic Resources

Program Area:	Landscapes and Watersheds
End Outcome Goal:	PEO 1 - Improve Health of Watersheds and Landscapes
Intermediate Outcome Strategy:	PIO 1.1 - Restore and Maintain Proper Function to Watersheds and Landscapes
DOI Sub process:	4a – Manage use of resources

Examples/Notes:

Work Activity Description:

FWS TO PROVIDE ACTIVITY DEFINITION

Output: Acres managed	Unit of Measure: Number of acres managed
Inputs:	Cost Drivers:

System Interfaces:

DOI Program Area Contact: Kathy Tynan (FWS)

DOI Work Activity 0P: Preserve Land and Aquatic Health

Program Area:	Landscapes and Watersheds
End Outcome Goal:	PEO 1 - Improve Health of Watersheds and Landscapes
Intermediate Outcome Strategy:	PIO 1.1 - Restore and Maintain Proper Function to Watersheds and Landscapes
DOI Sub process:	4a – Manage use of resources

Examples/Notes: Patrolling backcountry woodland environments. A bureau project that will enhance and protect these areas, and work that brings them into compliance with Interior and other regulations affecting natural resources.

Work Activity Description: Work to identify, monitor, and manage geological and natural resources, such as canyon lands, backcountry uplands and woodlands, and areas surrounding watersheds. Includes all work required to manage and protect land and aquatic resources through compliance, monitoring, and enforcing protective law. In addition, there can be costs for tangible assets “on the ground” required to comply, e.g. fences to keep livestock from restricted lands.

FWS and NPS will charge permit work to this activity as cases occur to ensure that permits and proposed projects comply with NEPA and other Federal rules/regulations.

Output: Acres Managed	Unit of Measure: Number of Acres managed
Inputs: Staff or labor time, travel costs, equipment and other materials required to comply with regulation.	Cost Drivers:

System Interfaces:

DOI Program Area Contact: Mike Brown (NPS)

DOI Work Activity 2B: Collect, Manage, and Ensure Compliance - AML Fees

Program Area:	Landscapes and Watersheds
End Outcome Goal:	PEO 1 - Improve Health of Watersheds and Landscapes
Intermediate Outcome Strategy:	PIO 1.1 - Restore and Maintain Proper Function to Watersheds and Landscapes
DOI Sub process:	4b - Conduct inspections to ensure appropriate use

Examples/Notes: This activity refers entirely to the execution of the Surface Mining Control and Reclamation Act's abandoned coal mine reclamation fee provisions. It is included in this goal area because its sole purpose is to fund the reclamation of land and water adversely affected by past coal mining operations

Work Activity Description: All collection, accounting, audit and related compliance activities associated with ensuring abandoned mine reclamation fees are accurately reported and paid, and that the compliance status of all coal mining permits is known. These include:

- Reviewing all coal mining permit transactions recorded by regulatory authorities, and determining those subject to fee payment.
- Developing and maintaining the systems to account for billing and collections, and federal/state shares of the funds.
- Preparing and processing pre-printed forms and reporting packages that are mailed to coal companies.
- Following up with and taking action on delinquent reporters and payers.
- Providing coal operators assistance on reporting and record-keeping issues.
- Conducting on-site reviews of coal companies' books and records.
- Developing fee policy and regulatory revisions to adapt to changes in the industry and legislation.
- Coordinating work with other federal, state, and Tribal organizations involved in coal mining oversight and related activities.

Also includes management of the Abandoned Mine Reclamation Fund, covering:

- Investment of funds not needed for immediate disbursement, and
- Calculation of payments from the interest earned to the UMWA Combined Benefit Fund.

Output: Permits managed for fee compliance	Unit of Measure: Number of permits managed for fee compliance.
Inputs: AML fee, value, and production reports from companies; permit information from regulatory authorities; production data from other sources.	Cost Drivers: Receipt of fee revenue and reports, and permit changes, delinquent accounts, enforcement actions.

System Interfaces:

DOI Program Area Contact: Sean Spillane (OSM)

DOI Work Activity 4E: Maintain Surface and Ground Water Systems

Program Area:	Landscapes and Watersheds
End Outcome Goal:	PEO 1 - Improve Health of Watersheds and Landscapes
Intermediate Outcome Strategy:	PIO 1.1 - Restore and Maintain Proper Function to Watersheds and Landscapes
DOI Sub process:	4c – Provide facilities

Examples/Notes: Ranger patrols, water purification, treatment and restoration projects

Work Activity Description: Monitor and maintain water quality in watersheds within Interior property. Restore water quality to required standards, after pollution or other causes of degraded quality. Create or correct water containment systems to improve water flow. Develop water manage plans for watersheds, based on the results of assessments conducted under DOI activity *M2: Assess Water Quality*, and DOI activity *M3: Assess Water Quantity*. Conduct ranger and official patrol activities to ensure the safety of water resources where access is restricted. Includes compliance work associated with maintaining water quality, as measured by the percent of surface waters that meet State (EPA approved) Water Quality Standards, consistent with applicable federal and state law.

Output: DOI water systems maintained	Unit of Measure: Number of facilities maintained
Inputs: Staff FTEs, contracted work, equipment, and related travel.	Cost Drivers:

System Interfaces:

DOI Program Area Contact: Mike Brown (NPS)

DOI Work Activity 6B: Conduct Environmental Consultations for Watersheds and Landscapes

Program Area:	Landscapes and Watersheds
End Outcome Goal:	PEO 1 - Improve Health of Watersheds and Landscapes
Intermediate Outcome Strategy:	PIO 1.1 - Restore and Maintain Proper Function to Watersheds and Landscapes
DOI Sub process:	4a - Manage use of resources

Examples/Notes: This activity applies only to FWS

Work Activity Description: This activity includes the following tasks to complete the Section 7 consultation process for projects that manage or influence the protection of landscapes and watersheds:

- Meet and communicate with the action agency and any applicant to gather additional information necessary to conduct the consultation;
- Assess the status of the species and critical habitat that may be affected by the project;
- Verify the scope of the proposed action, analyze the effects of the action, including cumulative effects, and develop reasonable and prudent alternatives to avoid jeopardy to listed species and destruction or adverse modification of designated critical habitat;
- Assess likely incidental take of listed species of implementing the action, develop reasonable and prudent measures, and terms and conditions to implement these measures, to minimize the impacts of this incidental take;
- Develop conservation recommendations;
- Develop alternative consultation agreements;
- Oversee/monitor action agency's implementation of HF counterpart regulations via ACAs; and
- Prepare draft and final biological opinions or letter of concurrence.

Output: Completed consultation action/activity completed via issuance of a BO or letter of concurrence	Unit of Measure: Number completed consultation actions/activities
Inputs:	Cost Drivers:

System Interfaces:

DOI Program Area Contact: Elizabeth Stevens (FWS)

DOI Work Activity 6Y: Conduct Environmental Consultations – Wildland Fire

Program Area:	Wildland Fire Management
End Outcome Goal:	PEO 1 - Improve Health of Watersheds and Landscapes
Intermediate Outcome Strategy:	PIO 1.1 - Restore and Maintain Proper Function to Watersheds and Landscapes
DOI Sub process:	4a – Manage use of resources

Examples/Notes: This activity applies only to FWS

Work Activity Description: This activity includes the following tasks to complete the Section 7 consultation process for projects that manage or influence responding to wild fires in forests, rangelands, and other lands outside and within the wildland urban interface (WUI).

- Meet and communicate with the action agency and any applicant to gather additional information necessary to conduct the consultation;
- Assess the status of the species and critical habitat that may be affected by the project;
- Verify the scope of the proposed action, analyze the effects of the action, including cumulative effects, and develop reasonable and prudent alternatives to avoid jeopardy to listed species and destruction or adverse modification of designated critical habitat;
- Assess likely incidental take of listed species of implementing the action, develop reasonable and prudent measures, and terms and conditions to implement these measures, to minimize the impacts of this incidental take;
- Develop conservation recommendations;
- Develop alternative consultation agreements;
- Oversee/monitor action agency's implementation of HF counterpart regulations via ACAs; and
- Prepare draft and final biological opinions or letter of concurrence.

Output: Completed consultation action/activity completed via issuance of a BO or letter of concurrence	Unit of Measure: Number completed consultation actions/activities
Inputs:	Cost Drivers:

System Interfaces:

DOI Program Area Contact: Elizabeth Stevens (FWS)

DOI Work Activity 7A: Reduce Hazardous Fuels - Prescribed Fire (non-WUI)

Program Area:	Wildland Fire Management
End Outcome Goal:	PEO 1 - Improve Health of Watersheds and Landscapes
Intermediate Outcome Strategy:	PIO 1.1 - Restore and Maintain Proper Function to Watersheds and Landscapes
DOI Sub process:	4d - Conserve resources (perform resource treatments)

Examples/Notes:

Work Activity Description: Treatments to reduce the buildup of hazardous fuels outside the wildland urban interface to support land/resource management plan goals and objectives to restore or maintain healthy forests and rangelands using prescribed fire. Where multiple treatments are necessary to meet fuel treatment objectives, such as mechanical treatment followed by prescribed fire, each treatment is counted individually and reported to the specific work activity.

Costs for this activity include:

- Salaries, benefits, travel and supplies for personnel directly involved in planning fuels management treatments outside the WUI including: staff time for collaboration (outreach, community workshops, meetings, public meetings, etc.) with other entities and the public, consultation with tribes, risk assessments, NEPA and ESA analyses, mitigation planning, condition class assessments, identification of treatment needs, coordination and cross walking with other existing implementation plans, compliance with state (e.g. smoke), other federal, and local laws, third party contracting, burn plans, etc.
- Salaries, benefits, travel and supplies for personnel directly involved in preparing and implementing fuels management treatments within the WUI including: on-the-ground manipulation of vegetation and soil, contracts, equipment, equipment rental, initial treatment effects monitoring, plot establishment, aircraft flight time, and initial construction of fuel breaks designed to protect the WUI
- Training in fuels treatment methods and techniques
- Developing fuels treatment methods and techniques
- Document preparation such as printing, collating, and distribution,
- Training associated with preparing staff to complete plans, research and data searches and GIS associated activities.
- Training associated with developing and attending NWCG certified prescribed fire curriculum

This activity does not include costs for cultural and historical surveys, T&E species surveys, and archeological surveys.

Output: Acres treated	Unit of Measure: Number of acres treated by prescribed fire outside the WUI
Inputs:	Cost Drivers:

System Interfaces:

DOI Program Area Contact: Scott Dalzell (OS/OWFC)

DOI Work Activity 7B: Reduce Hazardous Fuels – Mechanical (Non-WUI)

Program Area:	Wildland Fire Management
End Outcome Goal:	PEO 1 - Improve Health of Watersheds and Landscapes
Intermediate Outcome Strategy:	PIO 1.1 - Restore and Maintain Proper Function to Watersheds and Landscapes
DOI Sub process:	4d - Conserve resources (perform resource treatments)

Examples/Notes:

Work Activity Description: Treatments to reduce the buildup of hazardous fuels outside the wildland urban interface to support land/resource management plan goals and objectives to restore or maintain forest and rangeland health using manual or mechanical methods. Mechanical treatments include hand or mechanical thinning, pruning, crushing, chopping, lop and scatter, piling, brush cutting, chipping, etc. to reduce wildland fuels hazards. Where multiple treatments are necessary to meet fuel treatment objectives, such as mechanical treatment followed by prescribed fire, each treatment is counted individually and charged to the specific work activity.

Costs for this activity include:

- Salaries, benefits, travel and supplies for personnel directly involved in planning fuels management treatments outside the WUI including: staff time for collaboration (outreach, community workshops, meetings, public meetings, etc.) with other entities and the public, consultation with tribes, risk assessments, NEPA and ESA analyses, mitigation planning, condition class assessments, identification of treatment needs, coordination and cross-walking with other existing implementation plans, compliance with state, other federal, and local laws, third party contracting, etc.
- Salaries, benefits, travel and supplies for personnel directly involved in preparing and implementing fuels management treatments outside the WUI including: on-the-ground manipulation of vegetation and soil, contracts, equipment, equipment rental, initial treatment effects monitoring, plot establishment, and aircraft flight time
- Training in fuels treatment methods and techniques
- Costs associated with developing fuels treatment methods and techniques
- Costs associated with document preparation such as printing, collating, and distribution,
- Training associated with preparing staff to complete plans, research and data searches and GIS associated activities.

This activity does not include costs for cultural and historical surveys, T&E species surveys, and archeological surveys.

Output: Acres treated	Unit of Measure: Number of acres treated by mechanical means outside the WUI
Inputs: Provide for a fully trained and equipped fuels reduction workforce. Includes labor, contracts, agreements, and other costs associated with the reportable unit including: NEPA, condition class assessments, identify treatment needs, planning, implementing fuels treatment projects to reduce hazardous fuels to fire outside the Wildland Urban Interface (WUI).	Cost Drivers:

System Interfaces:

DOI Program Area Contact: Scott Dalzell (OS/OWFC)

DOI Work Activity 7C: Reduce Hazardous Fuels - Other Methods (Non-WUI)

Program Area:	Wildland Fire Management
End Outcome Goal:	PEO 1 - Improve Health of Watersheds and Landscapes
Intermediate Outcome Strategy:	PIO 1.1 - Restore and Maintain Proper Function to Watersheds and Landscapes
DOI Sub process:	4d - Conserve resources (perform resource treatments)

Examples/Notes:

Work Activity Description: Other fuels reduction treatments (WUI) are specific fuels treatments undertaken using chemical or biological agents with the defined objective of mitigating the risk to a community for wildland fire on federal lands. Each project is undertaken within the guidance outlined in a project specific plan compliant with all applicable Federal, Tribal, State, and local law. Where multiple treatments are necessary to meet fuel treatment objectives, each treatment is counted individually and charged to the specific work activity.

Costs for this activity include:

- Salaries, benefits, travel and supplies for personnel directly involved in planning fuels management treatments within the WUI including: staff time for collaboration (outreach, community workshops, meetings, public meetings, etc.) with other entities and the public, consultation with tribes, risk assessments, NEPA and ESA analyses, mitigation planning, condition class assessments, identification of treatment needs, coordination and cross-walking with other existing implementation plans, chemical prescriptions, compliance with state, other federal, and local laws, third party contracting, etc.
- Salaries, benefits, travel and supplies for personnel directly involved in preparing and implementing fuels management treatments within the WUI including: on-the-ground manipulation of vegetation and soil, contracts, equipment, equipment rental, initial treatment effects monitoring, plot establishment, and aircraft flight time
- Training in fuels treatment methods and techniques
- Costs associated with developing fuels treatment methods and techniques
- Costs associated with document preparation such as printing, collating, and distribution,
- Training associated with preparing staff to complete plans, research and data searches and GIS associated activities.

This activity does not include costs for cultural and historical surveys, T&E species surveys, and archeological surveys.

Output: Acres treated	Unit of Measure: Number of acres treated by chemical or biological means outside the WUI
Inputs:	Cost Drivers:

System Interfaces:

DOI Program Area Contact: Scott Dalzell (OS/OWFC)

DOI Work Activity 7D: Stabilize Burned Areas

Program Area:	Wildland Fire Management
End Outcome Goal:	PEO 1 - Improve Health of Watersheds and Landscapes
Intermediate Outcome Strategy:	PIO 1.1 - Restore and Maintain Proper Function to Watersheds and Landscapes
DOI Sub process:	4d - Conserve resources (perform resource treatments)

Examples/Notes:

Work Activity Description: Planned actions within one year of a wildland fire to stabilize and prevent unacceptable degradation of natural and cultural resources, to minimize threats to life or property resulting from the effects of a fire, or to repair/replace/construct physical improvements necessary to prevent degradation of land or resources.

Costs associated with emergency stabilization of burned areas include:

- Work to prevent land degradation, resource losses, other measures necessary to stabilize erodible soils, structures, or other conditions or damage caused by wildfires
- Planning, collaboration (outreach, meetings, public meetings, etc.) with other entities and the public
- Consultation with tribes
- NEPA analysis
- ESA section 7 threatened and endangered species consultation and review
- Coordination and cross-walking with other existing implementation plans
- Third party contracting, cultural clearances, condition class assessments
- Compliance with other Federal, state, and local laws
- Identification of treatment
- Seeding/mulching to prevent erosion
- Seeding to prevent permanent impairment of critical habitat for Federal and state listed, proposed or candidate threatened and endangered species.
- Seeding to prevent establishment of invasive plants
- Direct treatment of invasive plants
- Structural measures to slow soil & water movement
- Stabilize critical heritage resources
- Protective fences or barriers to protect treated or recovering area
- Replacing/repairing (minor) facilities essential to public health and safety
- Conducting assessments of habitat and significant heritage sites in those areas affected by emergency stabilization treatments
- Patrolling, camouflaging, burying significant heritage sites to prevent looting
- Increasing road drainage frequency and/or capacity to handle additional post-fire runoff
- Document preparation such as printing, collating, and distribution
- Training associated with preparing staff to complete these plans
- Research and data searches
- GIS associated activities

This activity does not include costs for cultural and historical surveys, T&E species surveys, and archeological surveys.

Output: Acres treated	Unit of Measure: Number of acres treated
Inputs:	Cost Drivers:

System Interfaces:

DOI Program Area Contact: Scott Dalzell (OS/OWFC)

DOI Work Activity 7E: Rehabilitate Lands Damaged by Wildland Fire

Program Area:	Wildland Fire Management
End Outcome Goal:	PEO 1 - Improve Health of Watersheds and Landscapes
Intermediate Outcome Strategy:	PIO 1.1 - Restore and Maintain Proper Function to Watersheds and Landscapes
DOI Sub process:	4d - Conserve resources (perform resource treatments)

Examples/Notes:

Work Activity Description: Includes labor and other costs associated with the rehabilitation of burned areas and damage caused by wildfires. Emergency rehabilitation costs for any one fire shall not exceed three years or two full growing seasons to repair or improve lands unlikely to recover to a management approved condition from wildland fire damage, or to repair or replace minor facilities damaged by fire.

Costs associated with rehabilitation include:

- Tree planting to establish burned habitat, reestablish native tree species lost in fire, regenerating Indian trust commercial timberland
- Repair damage to minor facilities (campgrounds, exhibits, fences, guzzlers, etc.)
- Habitat restoration
- Invasive plant treatment
- Road/trail maintenance
- Heritage site restoration
- Fence replacement
- Work to prevent land degradation or resource losses
- Fencing of areas to prevent animals or humans from entering sensitive areas
- Felling damaged trees posing threats to human safety
- Costs to plan, survey, design emergency measures to ensure rehabilitation of lands damaged by wildfire
- All costs associated with the preparation of activity plans
- Staff time for prep, collaboration (outreach, meetings, etc.) with other entities and the public
- Cultural clearances
- Consultation with tribes
- NEPA analysis
- Condition class assessments
- Section 7 ESA threatened and endangered species consultation and review
- Coordination and cross-walking with other existing implementation plans
- Third party contracting
- Compliance with other federal, state, and local laws
- Document preparation such as printing, collating, and distribution
- Training associated with preparing staff to complete these plans
- Research and data searches and GIS associated activities
- All costs of preparing post-burn supplements to Normal Fire Rehabilitation Plans (NFPR) and the costs of preparing Emergency Fire Rehabilitation Plans where no NFPR exists

This activity does not include costs for cultural and historical surveys, T&E species surveys, and archeological surveys. Costs of restoring burned areas to full natural or pre-fire productivity are to be funded from the resource programs benefiting activities.

Output: Acres treated	Unit of Measure: Number of acres treated
Inputs:	Cost Drivers:

System Interfaces:

DOI Program Area Contact: Scott Dalzell (OS/OWFC)

DOI Work Activity 7F: Perform Wetland Restoration Treatment

Program Area:	Landscapes and Watersheds
End Outcome Goal:	PEO 1 - Improve Health of Watersheds and Landscapes
Intermediate Outcome Strategy:	PIO 1.1 - Restore and Maintain Proper Function to Watersheds and Landscapes
DOI Sub process:	4d - Conserve resources (perform resource treatments)

Examples/Notes: Examples of tasks included in this activity include planting, plant production, contouring, seeding, placement of natural materials, prescribed burning when used as a restoration treatment, and prescribed animal and plant management (including application of bio-controls) needed to restore the ecosystem.

Work Activity Description: All work undertaken to stabilize, rehabilitate, restore (restoration) wetland habitat; the purpose being to restore natural processes regardless of the cause of the disturbance and/or to recover/restore one or more plant/animal species.

Incidental work supporting such restoration that may be reported here includes associated work that is undertaken for the purpose of restoring disturbed wetland habitat: resource assessment, baseline development, inventory & monitoring, treatment evaluation, collecting data that improves understanding of resource (habitat and species) condition, producing/processing legal instruments such as easements and permits, binding contracts such as land use agreements and set-aside agreements; Memoranda of Understanding; commenting on proposed actions potentially affecting the landscape; participation in regional resource conservation entities, project planning, environmental and T&E reviews.

Does not include work that results in construction of facilities or structures. It does not include work to "enhance" the resource beyond that which natural processes can maintain. This work is intended to restore the natural resources to a condition that existed prior to disturbance rather than to mitigate the disturbance.

Output: Treated acres (any given site is counted as at least one acre).	Unit of Measure: Number of acres restored
Inputs: Labor, contracts, equipment, materials, transportation, quality control and quality assurance. Land owner, stakeholder, and land manager requests; and management plans	Cost Drivers: Type, nature, and location of the acres to be restored; Complexity of restoration; Cause of the disturbance; etc.

System Interfaces:

DOI Program Area Contact: Mike Brown (NPS)

DOI Work Activity 7G: Perform Upland Restoration Treatment

Program Area:	Landscapes and Watersheds
End Outcome Goal:	PEO 1 - Improve Health of Watersheds and Landscapes
Intermediate Outcome Strategy:	PIO 1.1 - Restore and Maintain Proper Function to Watersheds and Landscapes
DOI Sub process:	4d - Conserve resources (perform resource treatments)

Examples/Notes: Examples of tasks included in this activity include: planting, plant production, contouring, seeding, placement of natural materials, prescribed burning when used as a restoration treatment, and prescribed animal and plant management (including application of bio-controls) needed to restore the ecosystem.

Work Activity Description: All work undertaken to stabilize, rehabilitate, restore (restoration) upland habitat; the purpose being to restore natural processes regardless of the cause of the disturbance and/or to recover/restore one or more plant/animal species.

Incidental work supporting such restoration that may be reported here includes associated work that is undertaken for the purpose of restoring disturbed upland habitat: resource assessment, baseline development, inventory & monitoring, treatment evaluation, collecting data that improves understanding of resource (habitat and species) condition, producing/processing legal instruments such as easements and permits, binding contracts such as land use agreements and set-aside agreements; Memoranda of Understanding; commenting on proposed actions potentially affecting the landscape; participation in regional resource conservation entities, project planning, environmental and T&E reviews.

Does not include work that results in construction of facilities or structures. It does not include work to "enhance" the resource beyond that which natural processes can maintain. This work is intended to restore the natural resources to a condition that existed prior to disturbance rather than to mitigate the disturbance.

"Enhancement" of habitat to improve condition of species (flooding, acquiring water rights, adjusting food availability, etc.) as well as annual and cyclic habitat management for purpose of species management is addressed by DOI activity **Conserve Habitat to Support Non-T&E Species (7Q)**.

Output: Treated acres (any given site is counted as at least one acre).	Unit of Measure: Number of acres restored
Inputs: Labor, contracts, equipment, materials, transportation, quality control and quality assurance. Land owner, stakeholder, and land manager requests; and management plans	Cost Drivers: Type, nature, and location of the acres to be restored; Complexity of restoration; Cause of the disturbance; etc.

System Interfaces:

DOI Program Area Contact: Mike Brown (NPS)

DOI Work Activity 7H: Restore, Control or Mitigate Disturbances to Mined Lands

Program Area:	Landscapes and Watersheds
End Outcome Goal:	PEO 1 - Improve Health of Watersheds and Landscapes
Intermediate Outcome Strategy:	PIO 1.1 - Restore and Maintain Proper Function to Watersheds and Landscapes
DOI Sub process:	4d - Conserve resources (perform resource treatments)

Examples/Notes: For OSM: Management of civil penalty reclamation and Federal bond forfeiture projects; control or extinguishing outcrop and underground coal fires; and Federal grants to States and Tribes for the reclamation of environmental hazards caused by past coal mining practices

Work Activity Description: On-the-ground activities or treatments, including contouring or other earth movement, seeding or planting and water treatment, and associated preliminary work undertaken for the purpose of restoring, controlling or mitigating disturbance to landscapes and watersheds caused by past mining activity. Does not include preparation of planning documents or the construction of facilities or structures to the extent that they do not contribute to the restoration, control or mitigation of disturbances caused by past mining.

Examples of associated preliminary work include:

- Cost of producing/processing legal instruments - such as easements, permits, and contracts and agreements, such as specific land use or set-aside agreements and memoranda of understanding;
- Data collection and analysis that focuses on understanding the condition, functionality and/or factors affecting the resource as it relates to specific treatment or treatment activities; and
- Inventorying or characterizing work or treatment at specific sites where the need for restoration, control or mitigation may exist.

Output: Sites treated (acreage or sites where interim or final restoration, control or mitigation actions are complete). Acreage treated constitutes one site.	Unit of Measure: Number of sites treated
Inputs: Labor; contracts and agreements; equipment and materials; transportation; quality control and assurance; land owner, stakeholder or land manager requests; and management, activity and design and construction plans	Cost Drivers: Acres to be restored; complexity of restoration; cost of inputs, location

System Interfaces:

DOI Program Area Contact: Kathryn O'Toole (OSM)

DOI Work Activity 7J: Perform Riparian Restoration Treatment

Program Area:	Landscapes and Watersheds
End Outcome Goal:	PEO 1 - Improve Health of Watersheds and Landscapes
Intermediate Outcome Strategy:	PIO 1.1 - Restore and Maintain Proper Function to Watersheds and Landscapes
DOI Sub process:	4d - Conserve resources (perform resource treatments)

Examples/Notes: Examples of tasks included in this activity include: planting, plant production, contouring, seeding, placement of natural materials, prescribed burning when used as a restoration treatment, and prescribed animal and plant management (including application of bio-controls) needed to restore the ecosystem.

Work Activity Description: All work undertaken to stabilize, rehabilitate, restore (restoration) riparian habitat; the purpose being to restore natural processes regardless of the cause of the disturbance and/or to recover/restore one or more plant/animal species.

Incidental work supporting such restoration that may be reported here includes associated work that is undertaken for the purpose of restoring disturbed riparian habitat: resource assessment, baseline development, inventory & monitoring, treatment evaluation, collecting data that improves understanding of resource (habitat and species) condition, producing/processing legal instruments such as easements and permits, binding contracts such as land use agreements and set-aside agreements; Memoranda of Understanding; commenting on proposed actions potentially affecting the landscape; participation in regional resource conservation entities, project planning, environmental and T&E reviews.

Does not include work that results in construction of facilities or structures. It does not include work to "enhance" the resource beyond that which natural processes can maintain. This work is intended to restore the natural resources to a condition that existed prior to disturbance rather than to mitigate the disturbance.

Output: Treated acres (any given site is counted as at least one acre).	Unit of Measure: Number of acres restored
Inputs: Labor, contracts, equipment, materials, transportation, quality control and quality assurance. Land owner, stakeholder, and land manager requests; and management plans	Cost Drivers: Type, nature, and location of the acres to be restored; Complexity of restoration; Cause of the disturbance; etc.

System Interfaces:

DOI Program Area Contact: Mike Brown (NPS)

DOI Work Activity 7K: Perform Marine Restoration Treatment

Program Area:	Landscapes and Watersheds
End Outcome Goal:	PEO 1 - Improve Health of Watersheds and Landscapes
Intermediate Outcome Strategy:	PIO 1.1 - Restore and Maintain Proper Function to Watersheds and Landscapes
DOI Sub process:	4d - Conserve resources (perform resource treatments)

Examples/Notes: Examples of tasks included in this activity include: planting, plant production, placement of natural materials, and prescribed animal and plant management (including application of bio-controls) needed to restore the ecosystem.

Work Activity Description: All work undertaken to stabilize, rehabilitate, restore (restoration) marine habitat; the purpose being to restore natural processes regardless of the cause of the disturbance and/or to recover/restore one or more plant/animal species.

Incidental work supporting such restoration that may be reported here includes associated work that is undertaken for the purpose of restoring disturbed marine habitat: resource assessment, baseline development, inventory & monitoring, treatment evaluation, collecting data that improves understanding of resource (habitat and species) condition, producing/processing legal instruments such as easements and permits, binding contracts such as land use agreements and set-aside agreements; Memoranda of Understanding; commenting on proposed actions potentially affecting the landscape; participation in regional resource conservation entities, project planning, environmental and T&E reviews.

Does not include work that results in construction of facilities or structures. It does not include work to "enhance" the resource beyond that which natural processes can maintain. This work is intended to restore the natural resources to a condition that existed prior to disturbance rather than to mitigate the disturbance.

Output: Treated acres (any given site is counted as at least one acre).	Unit of Measure: Number of acres restored
Inputs: Labor, contracts, equipment, materials, transportation, quality control and quality assurance. Land owner, stakeholder, and land manager requests; and management plans	Cost Drivers: Type, nature, and location of the acres to be restored; Complexity of restoration; Cause of the disturbance; etc.

System Interfaces:

DOI Program Area Contact: Mike Brown (NPS)

DOI Work Activity 7L: Restore Forest and Woodlands

Program Area:	Landscapes and Watersheds
End Outcome Goal:	PEO 1 - Improve Health of Watersheds and Landscapes
Intermediate Outcome Strategy:	PIO 1.1 - Restore and Maintain Proper Function to Watersheds and Landscapes
DOI Sub process:	4d - Conserve resources (perform resource treatments)

Examples/Notes:

Work Activity Description: Acres of forest and woodland timber sales treated for the primary purpose of:

- Salvaging timber killed by insects, disease, fire, or other disturbance mechanism;
- Reducing tree stocking levels, basal area, stem densities, or fuel loading for the purpose of increasing forest resiliency to natural disturbance agents, including insects, disease, fire, wind, or drought;
- Adjusting the vegetative mosaic of a forest landscape for the purposes of improving forest habitat for associated species and/or providing late-succession habitat for associated species;
- Vegetation treatments specifically designed as a result of wildlife or plant habitat analysis are to be counted here and include snag creation and site disturbance to promote growth and/or vigor of certain plants; or
- Vegetation treatments specifically designed to improve or maintain watershed functionality outside of riparian and wetland zones.

Appropriate charges for restoration timber sale treatments include all costs associated with planning (including environmental clearances, NEPA, NHPA, Section 106, Section 7), preparing and implementing projects, including contract administration costs.

Output: Acres treated.	Unit of Measure: Number of acres treated reported in whole numbers.
Inputs:	Cost Drivers:

System Interfaces:

DOI Program Area Contact:

**DOI Work Activity 8F: Manage Naturally Occurring Fires for Natural Resource Benefit
(Wildland Fire Use)**

Program Area:	Wildland Fire Management
End Outcome Goal:	PEO 1 - Improve Health of Watersheds and Landscapes
Intermediate Outcome Strategy:	PIO 1.1 - Restore and Maintain Proper Function to Watersheds and Landscapes
DOI Sub process:	4d - Conserve resources (perform resource treatments)

Examples/Notes:

Work Activity Description: Time and materials required to manage a naturally occurring wildfire (as opposed to a prescribed fire) for resource benefits. Effort begins after the fire has been approved for wildland fire use, and continues until the fire is out or no longer requires active management. Includes all staff and contractor time, transportation costs, equipment, and supplies to manage the wildland fire.

Output: Wildland fire acres managed for resource benefits	Unit of Measure: Number of wildland fire acres managed
Inputs:	Cost Drivers:

System Interfaces:

DOI Program Area Contact: Scott Dalzell (OS/OWFC)

DOI Work Activity 8H: Reduce Salt Loading into Colorado River/Reservoir System

Program Area:	Landscapes and Watersheds
End Outcome Goal:	PEO 1 - Improve Health of Watersheds and Landscapes
Intermediate Outcome Strategy:	PIO 1.1 - Restore and Maintain Proper Function to Watersheds and Landscapes
DOI Sub process:	4a - Manage use of resources

Examples/Notes:

Work Activity Description: All activities conducted under Title II, Colorado River Basin Salinity Control Act (Basin-wide Program). This does not include operation and maintenance activities; or treatment directly related to project operations (Title I).

Output: tons of salt	Unit of Measure: Tons of salt loading prevented
Inputs: Contracted tons, staff equipment, travel	Cost Drivers: Cost per ton, degree of pollution problem, control over source of pollution, available technologies, cost sharing with partners

System Interfaces:

DOI Program Area Contact: Kerry Whitford (BOR)

DOI Work Activity A0: Monitor And Evaluate Fuels Reduction and Post-Fire Rehabilitation Treatments

Program Area:	Wildland Fire Management
End Outcome Goal:	PEO 1 - Improve Health of Watersheds and Landscapes
Intermediate Outcome Strategy:	PIO 1.1 - Restore and Maintain Proper Function to Watersheds and Landscapes
DOI Sub process:	1a - Collect data (conduct inventories, surveys, monitoring)

Examples/Notes:

Work Activity Description: Fuels treatments include chemical, mechanical, vegetation seeding or re-vegetation treatments, prescribed fires, wildland fire for resource benefit or a combination of these treatments.

Costs for monitoring and evaluating fuels treatments include:

- Labor and other costs associated with monitoring and evaluating the short-term effects of fuels management treatments,
- Monitoring weed or other vegetation, and
- Evaluating vegetation response to the fire or treatment.

Costs for monitoring and evaluating emergency stabilization and rehabilitation treatments include:

- Labor and other costs associated with monitoring and evaluating rehabilitation projects and actions for up to three growing seasons after fire control. This includes monitoring plot establishment, reading of studies, data analysis and preparation of an evaluation report. Acres monitored are reported each year that studies are read and when the evaluation report is completed. Initial treatment effects monitoring, plot establishment, and first year post-treatment monitoring.
- Salaries, benefits, travel and supplies for personnel directly involved in monitoring and evaluation for actions taken prior to and during treatment to measure treatment effectiveness and ecological change. Monitoring and evaluation may extend beyond the 3-year period of rehabilitation actions.

Output: Acres monitored and evaluated	Unit of Measure: Number of acres monitored and evaluated
Inputs:	Cost Drivers:

System Interfaces:

DOI Program Area Contact: Scott Dalzell (OS/OWFC)

DOI Work Activity A1: Inventory Ecological Sites On Rangelands/Farmlands

Program Area:	Landscapes and Watersheds
End Outcome Goal:	PEO 1 - Improve Health of Watersheds and Landscapes
Intermediate Outcome Strategy:	PIO 1.1 - Restore and Maintain Proper Function to Watersheds and Landscapes
DOI Sub process:	1a - Collect data (conduct inventories, surveys, monitoring)

Examples/Notes:

Work Activity Description: Includes all labor and operational costs associated with conducting ecological site inventories (ESI) such as planning for the inventory, GIS support, data management, contracts/interservice agreements, and equipment purchases/rental.

Activity involves mapping ecological sites and vegetation communities, and the systematic sampling of these sites to, at a minimum, determine above the ground annual production on all vegetation species. All techniques used are patented after those identified in the Natural Resource Conservation Services/ National Range and Pasture Handbook (1997).

Information collected is used to determine site potential for numerous land uses, including what are appropriate benchmarks for ecological condition for that site.

Output: Acres Inventoried	Unit of Measure: Number of acres completed (inventoried) using the ESI Method to the nearest 1,000 Acres.
Inputs: TBD	Cost Drivers: TBD

System Interfaces:

DOI Program Area Contact:

DOI Work Activity A8: Collect, Manage and Distribute Data to Inform Decisions on Fire-Adapted Ecosystems

Program Area:	Knowledge Advancement
End Outcome Goal:	PEO 1 - Improve Health of Watersheds and Landscapes
Intermediate Outcome Strategy:	PIO 1.1 - Restore and Maintain Proper Function to Watersheds and Landscapes
DOI Sub process:	1a - Collect data (conduct inventories, surveys, monitoring)

Examples/Notes:

Work Activity Description: Activities that involve field or laboratory measurements or observations, the evaluation of particular conditions over a period of time, the integration of basic data to produce specific products, and maintenance/management of data collections/data sets that improve the information base for decision making on fire-adapted ecosystems. Examples of work to be coded to this activity include the following:

- Geophysical sampling
- Lab analysis of samples
- Data integration/processing
- Satellite operations
- Maintenance/management of metadata
- Creation/maintenance of data websites and catalogs
- Creation and maintenance of partnerships that foster data collection/management

Code to this activity any long-term data collection efforts that do not support specific fire-adapted ecosystem research or assessment projects. Data collection to support research projects is coded to DOI activity **Conduct Research to Inform Decisions on Fire-Adapted Ecosystems (L1)**. Data collection supporting assessment projects is coded to DOI Activity **Conduct Assessments to Inform Decision on Fire-Adapted Ecosystems (L0)**. Data collection for technical assistance is coded to DOI Activity **Provide Technical Assistance to Inform Decisions on Fire-Adapted Ecosystems (X2)**. Data management for all fire-adapted ecosystem projects is coded here.

Output: Cumulative GB assessable (prior years + current)	Unit of Measure: Number of cumulative GB assessable
Inputs:	Cost Drivers:

System Interfaces:

DOI Program Area Contact: Charlene Hall Raphael (USGS)

DOI Work Activity B4: Assess Air Quality

Program Area:	Landscapes and Watersheds
End Outcome Goal:	PEO 1 - Improve Health of Watersheds and Landscapes
Intermediate Outcome Strategy:	PIO 1.2 - Improve Information Base, Information Management and Technical Assistance
DOI Sub process:	1a - Collect data (conduct inventories, surveys, monitoring)

Examples/Notes: Note: a continuous precipitation gauge associated with a hydrologic stream flow gauge would be a reportable unit under this work activity. However, a hydrologic stream flow gauge alone would not be a reportable unit under this work activity.

Work Activity Description: Includes all work associated with air resource and climatological monitoring and evaluation including planning for and collecting and evaluating the data. This includes GIS support, equipment, data management, contracts/interagency agreements and other support.

Monitoring is reported when all scheduled monitoring is completed in the Fiscal Year. For example, although the station is read quarterly, reporting will only be completed once when all studies are collected and documented for the year.

Output: Stations monitored.	Unit of Measure: Number of air resource/climatological stations monitored. Number of locations (stations) collecting air resource data (regardless of number of individual sensors) to provide air quality or meteorology data to be used to analyze the effectiveness of management practices and/or evaluating trends towards meeting land use condition objectives or any other established standards. Note that non-recording precipitation storage gauge data collection used to evaluate Allotment vegetation conditions will not be coded to this work activity.
Inputs: Parameters to be monitored (e.g., visibility, wet deposition, ozone, meteorology)	Cost Drivers: Need for information to determine levels of air pollutants and correlate to observed effects

System Interfaces:

DOI Program Area Contact: Mike Brown (NPS)

**DOI Work Activity B6: Collect, Manage and Distribute Data to Inform Decisions on
Landscapes, Watersheds, Marine & Coastal Resources**

Program Area:	Knowledge Advancement
End Outcome Goal:	PEO 1 - Improve Health of Watersheds and Landscapes
Intermediate Outcome Strategy:	PIO 1.2 - Improve Information Base, Information Management and Technical Assistance
DOI Sub process:	1a - Collect data (conduct inventories, surveys, monitoring)

Examples/Notes:

Work Activity Description: Activities that involve field or laboratory measurements or observations, the evaluation of particular conditions over a period of time, the integration of basic data to produce specific products, and maintenance/management of data collections/data sets that support the advancement of knowledge through science. Examples of work to be coded to this activity include the following:

- Geophysical sampling
- Lab analysis of samples
- Data integration/processing
- Maintenance/management of metadata
- Creation/maintenance of data websites and catalogs
- Creation and maintenance of partnerships that foster data collection/management

Code to this activity any long-term data collection efforts that do not support specific landscape, watershed, marine and coastal research or assessment projects. Data collection to support research projects is coded to DOI activity **Conduct Research to Inform Decisions on Landscapes, Watersheds, Marine and Coastal Resources (L5)**. Data collection supporting assessment projects is coded to DOI Activity **Inventory and Assess Landscapes and Watersheds (L4)**. Data collection for technical assistance is coded to DOI Activity **Provide Technical Assistance to Inform Decisions on Landscapes and Watersheds (L3)**. Data management for all landscape, watershed, marine and coastal resource projects is coded here.

Output: Cumulative GB assessable (prior years + current)	Unit of Measure: Number of cumulative GB assessable
Inputs:	Cost Drivers:

System Interfaces:

DOI Program Area Contact: Charlene Hall Raphael (USGS)

DOI Work Activity L0: Conduct Assessments to Inform Decisions on Fire-Adapted Ecosystems

Program Area:	Knowledge Advancement
End Outcome Goal:	PEO 1 - Improve Health of Watersheds and Landscapes
Intermediate Outcome Strategy:	PIO 1.1 - Restore and Maintain Proper Function to Watersheds and Landscapes
DOI Sub process:	1b - Create information from data (perform analysis)

Examples/Notes:

Work Activity Description: Investigations that evaluate the status, condition, or other relevant aspects of a particular landscape; may be conducted on a geographic basis. Activities may include collection, inventory, monitoring, analysis, management, interpretation, evaluation, and synthesis of data as it relates to fire. Does not include data management which should be coded to DOI Activity **Collect, Manage and Distribute Data to Inform Decisions on Fire-Adapted Ecosystems (A8)**.

Output: systematic analyses delivered to customers	Unit of Measure: number of systematic analyses delivered
Inputs:	Cost Drivers:

System Interfaces:

DOI Program Area Contact: Charlene Hall Raphael (USGS)

DOI Work Activity L1: Conduct Research to Inform Decisions on Fire-Adapted Ecosystems

Program Area:	Knowledge Advancement
End Outcome Goal:	PEO 1 - Improve Health of Watersheds and Landscapes
Intermediate Outcome Strategy:	PIO 1.1 - Restore and Maintain Proper Function to Watersheds and Landscapes
DOI Sub process:	1b - Create information from data (perform analysis)

Examples/Notes:

Work Activity Description: Studies that advance the understanding of scientific principles or processes, or develop new methodologies to support fire-adapted management. Activities may include data collection supporting research or development of a research product, analysis, modeling, synthesis of data, interpretation, management of the research, development of protocols and research methodologies, and development of research products (maps, reports, systems, persistent data sets). Includes needs and requirements gathering-type workshops, but excludes technical transfer/technical assistance-type workshops and training. Does not include data management that should be coded to DOI activity **Collect, Manage and Distribute Data to Inform Decisions on Fire-Adapted Ecosystems (A8)**.

Output: Systematic Analysis & Investigation delivered to customers (i.e. journal articles, scientific publications, protocols, methodologies)	Unit of Measure: Number of systematic analysis/investigations delivered
Inputs:	Cost Drivers:

System Interfaces:

DOI Program Area Contact: Charlene Hall Raphael (USGS)

**DOI Work Activity L3: Provide Technical Assistance to Inform Decisions on
Landscapes and Watersheds**

Program Area:	Knowledge Advancement
End Outcome Goal:	PEO 1 - Improve Health of Watersheds and Landscapes
Intermediate Outcome Strategy:	PIO 1.2 - Improve Information Base, Information Management and Technical Assistance
DOI Sub process:	3c - Provide technical assistance (includes grants)

Examples/Notes: Technical assistance projects such as customized application systems and computer modeling; technical training; and technical transfer activities such as workshops, seminars and individualized assistance offered to aid customers in solving problems related to landscapes and watersheds.

Work Activity Description: Technical assistance, technical support, technical training, technology transfer, or technical studies is provided to land managers and other customers to solve a variety of environmental problems. These activities enhance resource management and policy development. Specific activities and technical assistance projects include but are not limited to:

- Design and systematic collection of environmental or geologic/seismographic data;
- Analytical support;
- Data synthesis;
- Adaptive management techniques;
- Partnerships (Cooperative Research Unit, et.al.)

Output: Technical Assistance provided (instances, issues, or events)	Unit of Measure: Number of instances, issues, or events of technical assistance provided
Inputs:	Cost Drivers:

System Interfaces:

DOI Program Area Contact: Charlene Hall Raphael (USGS)

DOI Work Activity L4: Inventory and Assess Landscapes and Watersheds

Program Area:	Knowledge Advancement
End Outcome Goal:	PEO 1 - Improve Health of Watersheds and Landscapes
Intermediate Outcome Strategy:	PIO 1.2 - Improve Information Base, Information Management and Technical Assistance
DOI Sub process:	1b - Create information from data (perform analysis)

Examples/Notes:

- Sub-basin assessments under the Northwest Forest Plan and the Interior Columbia Basin Ecosystem Restoration Project (ICBEMP)
- Uplands that may have been injured or destroyed by the release of oil or hazardous substances (including NRDAR)
- Status and trends (Biology)

Work Activity Description: All costs associated with inventorying, monitoring, assessing, or evaluating the status, condition or other relevant aspects of land health (watersheds/landscapes – including marine).

Includes

- NRDAR pre-assessment/scoping and assessment planning
- Collection, analysis, management, interpretation, and synthesis of data
- Planning and conducting watershed/landscape inventory
- Preparing reports/maps
- Damage assessments including pre-assessment screens, coordination with co-trustees and potentially responsible parties, development of damage claims
- Ecological site inventories including planning, GIS Support, and Contracts/Interagency Agreements
- Systematic sampling to determine above the ground annual production on all vegetation species
- Determining appropriate benchmarks for ecological condition for that site.

Output: Systematic analyses delivered to customers	Unit of Measure: Number of systematic analyses delivered
Inputs:	Cost Drivers:

System Interfaces:

DOI Program Area Contact: Mike Brown (NPS), Charlene Hall Raphael (USGS)

**DOI Work Activity L5: Conduct Research to Inform Decisions on Landscapes, Watersheds,
Marine & Coastal Resources**

Program Area:	Knowledge Advancement
End Outcome Goal:	PEO 1 - Improve Health of Watersheds and Landscapes
Intermediate Outcome Strategy:	PIO 1.2 - Improve Information Base, Information Management and Technical Assistance
DOI Sub process:	1b - Create information from data (perform analysis)

Examples/Notes:

Work Activity Description: Studies that advance the understanding of scientific principles or processes, or develop new methodologies in the biologic, geologic, hydrologic, information science, or other relevant disciplines that support the advancement of knowledge through science. Activities may include data collection supporting research or development of a research product, analysis, modeling, synthesis of data, interpretation, management of the research, development of protocols and research methodologies, and development of research products (maps, reports, systems, persistent data sets). Includes needs and requirements gathering-type workshops, but excludes technical transfer/technical assistance-type workshops and training.

Output: Systematic Analysis & Investigation delivered to customers (i.e. journal articles, scientific publications, protocols, methodologies)	Unit of Measure: Number of systematic analysis/ investigations delivered
Inputs:	Cost Drivers:

System Interfaces:

DOI Program Area Contact: Charlene Hall Raphael (USGS)

DOI Work Activity M2: Assess Water Quality

Program Area:	Elements
End Outcome Goal:	PEO 1 - Improve Health of Watersheds and Landscapes
Intermediate Outcome Strategy:	PIO 1.1 - Restore and Maintain Proper Function to Watersheds and Landscapes
DOI Sub process:	1b - Create information from data (perform analysis)

Examples/Notes:

Work Activity Description: Includes all work associated with water quality assessment, including planning for, monitoring, collecting and evaluating the data at specific water monitoring stations. Assessments are designed to measure the percent of surface waters that meet State (EPA approved) Water Quality Standards.

Output: Stations Monitored	Unit of Measure: Number of stations monitored
Inputs: Staff or labor time, travel costs, dedicated equipment	Cost Drivers:

System Interfaces:

DOI Program Area Contact: Mike Brown (NPS)

DOI Work Activity M3: Assess Water Quantity

Program Area:	Elements
End Outcome Goal:	PEO 1 - Improve Health of Watersheds and Landscapes
Intermediate Outcome Strategy:	PIO 1.1 - Restore and Maintain Proper Function to Watersheds and Landscapes
DOI Sub process:	1b - Create information from data (perform analysis)

Examples/Notes:

Work Activity Description: Includes all work associated with water quantity assessment, including planning for, monitoring, collecting and evaluating the data at specific water monitoring stations. Assessments are designed to protect and/or restore surface and ground water systems directly or influenced by DOI, as specified in management plans and consistent with applicable federal and state law.

Output: Stations Monitored	Unit of Measure: Number of stations monitored
Inputs: Staff or labor time, travel costs, dedicated equipment	Cost Drivers:

System Interfaces:

DOI Program Area Contact: Mike Brown (NPS)

DOI Work Activity X2: Provide Technical Assistance to Inform Decisions on Fire-Adapted Ecosystems

Program Area:	Knowledge Advancement
End Outcome Goal:	PEO 1 - Improve Health of Watersheds and Landscapes
Intermediate Outcome Strategy:	PIO 1.1 - Restore and Maintain Proper Function to Watersheds and Landscapes
DOI Sub process:	3c - Provide technical assistance (includes grants)

Examples/Notes: Technical assistance projects such as customized application systems and computer modeling; technical training; and technical transfer activities such as workshops, seminars and individualized assistance offered to aid customers in solving problems related to fire-adapted management.

Work Activity Description: Technical assistance, technical support, technical training, technology transfer, or technical studies is provided to land managers and other customers to solve a variety of environmental problems relating to fire. These activities enhance resource management and policy development. Specific activities and technical assistance projects include but are not limited to:

- Design and systematic collection of environmental data;
- Analytical support;
- Data synthesis;
- Adaptive management techniques;
- Partnerships

Does not include phone calls, multi-year ongoing relationships with stakeholders, priority ecosystem studies, or “DOI on the Landscape” projects.

Output: Technical Assistance provided (instances, issues, or events)	Unit of Measure: Number of instances, issues, or events of technical assistance provided
Inputs:	Cost Drivers:

System Interfaces:

DOI Program Area Contact: Charlene Hall Raphael (USGS)